

REMARKS

In the above-referenced Office Action, the Examiner rejected claims 1-20 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In support of the rejection, the Examiner stated that:

"Claim 1 recites "a predetermined component directly attached to one of said output shaft of said prime mover". It is unclear as to what exactly the "predetermined component" is and how it works and relates to the rest of the system.

Claim 5 recites "a predetermined component directly attached to one of said output shaft of said prime mover". It is unclear as to what exactly the "predetermined component" is and how it works and relates to the rest of the system.

Claim 7 recites "an armature axially disposed at a predetermined air gap X from said stationary magnet". It is unclear as to what the "predetermined air gap X" is and what point it serves with the rest of the system.

Claim 16 recites, "a predetermined component directly attached to said output said means". It is unclear as to what exactly the "predetermined component" is and how it works and relates to the rest of the system.

Claim 21 recites "an armature axially disposed at a predetermined air gap X from said stationary magnet". It is unclear as to what the "predetermined air gap X" is and what point it serves with the rest of the system".

Applicant respectfully points out that limitation of "a predetermined component directly attached to one of said output shaft of said prime mover" has been canceled from independent claims 5 and 16.

With regards to clarity of "predetermined air gap X" and the function that it serves with the rest of the system, Applicant respectfully points out that design and operation of the electromagnetic brakes are well known in the art.

U.S. 6,659,238 issued December 9, 2003 to Saito et al discloses in column 3 lines 11-16 "an electromagnetic brake comprising an electromagnetic brake body having a yoke member with a coil winding and a brake movable member formed of a magnetic material, which is disposed via an air gap in a magnetic path formed by the electromagnetic brake body and is fixed to a rotating shaft".

U.S. 7,059,453 issued June 13, 2006 to Yamamoto et al discloses in column 2 lines 17-23 that "an air gap is defined between the armature member and the core member, and the armature member is attracted to the core member by passing a current through the exciting coil, thereby engaging the

multiplate brake mechanism. **The thrust by the exciting coil is largely influenced by the amount of the air gap**".

U.S. 4,235,311 issued November 25, 1980 to Brinkmann et al discloses in column 1 lines 48-52 that "the width of the customary air gap which is provided between the first component and the friction generating liner of the second component in disengaged condition of the brake varies as the wear upon the parts of the brake (especially upon the liner) progresses". In column 1 lines 59-61, Brinkmann further discloses that **"effectiveness of the brake decreases as the width of the air gap increases"**.

Therefore, the prior art clearly defines the air gape of the electromagnetic brake and the purpose that it serves and it will be apparent to one of ordinary skill in the art how to predetermine the size of the air gap of the electromagnetic brake in use for maintaining the door of a transit vehicle in the locked condition.

For the sake of clarity, the exiting coil of the electromagnetic brake of the present invention is clearly shown in FIG. 3 as part of the stationary magnet, reference symbol 70.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 1-21 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Next, the Examiner rejected claims 1-6 and 8-20 under 35 U.S.C. 102(b) as being anticipated by Fink (US 6,189,265).

In support of his rejection, the Examiner stated, "Fink discloses a swinging/sliding door mechanism comprised of a pair of doors 1, 2 having seals that mate with seals on the side of the vehicle. The door is has rollers 5, 7 that run on rails 6, 8, or hangers, at the top and bottom of the car. A rotatable drive spindle 12 operates the doors. An electric drive motor 10 rotates the spindle and a drive nut 21 engages the spindle. The movement of the nut and the spindle results in the opening and closing of the doors. A hanger bracket 3 is coupled to the drive means 10 and adapted for linear movement with the drive nut 21 when the spindle 12 is rotated to open and close the doors. A brake system in the form of clutch disks are attached to the spindle 12 and maintain the doors in a locked position, whether that be locked open or locked closed, it prevents the spindle 12 and drive nut 21 from moving the doors. The brake system is further comprised of an emergency actuating device, which overrides the controls from the operator of the train to release the brakes and open the door. The signaling for the door to open and close originates with the operator of the train at a remote

location from the doors and the other sets of doors along the length of the train".

Applicant notes with appreciation that claims 7 and 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Independent claims 5 and 16 have been amended to include allowable subject matter of claim 7 rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph.

Independent claim 1 and claim 7 have been canceled.

With regards to the original independent claim 20, now claim 19, the Examiner failed to show exactly where Fink discloses or suggests a method for determining failure of the brake mechanism prior to opening the door of the transit vehicle since Fink prior art reference clearly fails to disclose each and every limitation recited in claim 19.

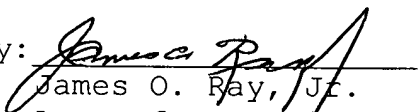
It is therefore respectfully requested that the rejection of claims 1-20 under 35 USC 102(b) as being 1-6 and 8-20 under 35 U.S.C. 102(b) as being anticipated by Fink (US 6,189,265) be reversed.

Conclusion

In view of the above amendments to the claims and the remarks associated therewith, Applicant believes that independent claims 5, 16, 19 and 20 are in a condition for allowance and such allowance by the Examiner is respectfully requested. Since it is believed that independent claims 5, 16, 19 and 20 are in condition for allowance, their dependent claims, further providing limitations are also in a condition for allowance.

In the event the Examiner has further difficulties with the allowance of the application, he is invited to contact the undersigned attorney by telephone at 412-380-0725 to resolve any remaining questions or issues by interview and/or by Examiner's amendment as to any matter that will expedite the completion of the prosecution of the application.

Respectfully submitted,

By: 
James O. Ray, Jr.
Agent for Applicant
Registration No. 27,666

JAMES RAY & ASSOCIATES
2640 PITCAIRN ROAD
MONROEVILLE, PA 15146

TELEPHONE: 412-380-0725
FACSIMILE: 412-380-0748